February 2010

Bachelor of Computer Application (BCA) Examination

I Semester

Statistical Methods

Time : 3 Hours] [Max. Marks : 40

Note- Attempt any two parts from each question. All questions carry equal marks.

1. (a) Write a note on Ogive Curve and state its application.

   (b) What is a Frequency Distribution? Discuss the graphical representation of a frequency distribution.

   (c) Define the following-

   Statistics, Sample, Discrete and Continous Variables.

2. (a) Define Root Mean Square Deviation and Standard Deviation. Derive the relationship between them.

   (b) Goals scored by two teams A and B in a football season were as follows :

No. of Goals Scored in a Match	No. of Matches Played by Team A	Team B
0	27	17
1	9	9
2	8	6
3	5	5
4	4	3

   Find out which team is more consistent.

   (c) Write a note on Measure of Dispersion.

3. (a) Write a note on Moment Generating Function.

   (b) Each coefficient in the equation $ax^2 + bx + c = 0$ is determined by throwing an ordinary die. Find the probability that the equation will have real roots.

   (c) What is the expectation of the number of failures preceding the first success in an infinite series of independent trials with constant probability p of success in each trial?

4. (a) Write a note on Normal Distribution.

(b) In a certain town 20% of the population is literate, and assume that 200 investigators takea sample of ten individuals to see whether they are literate. How many investigators would you expect to report that three people or less are literate in the sample?

(c) Write a note on Hyper-geometric Distribution.

5. (a) Write a note on Multiple and Partial Correction.

(b) Given that (A) = (B) = (C) = $\frac{N}{2}$ = 50 and (AB) = 30, (AC) = 25, find the limits within which (BC) will lie.

(c) Write a note on Correlation Index.

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